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mapping a path of control flow on the stack from any start point in a selected method to the destination program counter by locating a linear path from the beginning of the method to the destination program counter and iteratively processing a bytecode sequence for each branch until said destination program counter is reached; and

simulating stack actions for executing bytecodes along said path, and
constructing a virtual stack for storage in a pre-allocated memory location,
wherein said processing said bytecode sequence is performed without modifying
the program bytecodes in the stack.

Sub
C3

B2

11. (Twice Amended) A method for mapping a Java bytecode stack up to a destination program counter comprising:

mapping a path of control flow on the stack from any start point in a selected method to the destination program counter by locating a linear path from the beginning of the method to the destination program counter and iteratively processing a bytecode sequence at each branch until said destination counter is reached; and

simulating stack actions for executing bytecodes along said path, and
constructing a virtual stack for storage in a pre-allocated memory location,
wherein said processing said bytecode sequence is performed without modifying
the program bytecodes in the stack.

B3

23. (Amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the machine to perform method steps for mapping a valid stack up to a destination program counter, said method steps comprising: